Response to:

Request for Proposal

To Design and Implement Decision Support Tools and Predictive
Analytics in Human Services

By:

Allegheny HealthChoices, Inc.

Executive Summary

Allegheny HealthChoices, Inc. (AHCI), a non-profit, 501(c)(3) corporation located in Pittsburgh, PA, has a successful 15-year history of designing and building custom decision support and business intelligence applications for the Allegheny County Department of Human Services, as well as other counties within the Commonwealth.

AHCI has the tools, experience, and capacity necessary to address the issues outlined in the RFP. We have direct experience with integrating data though our work in Allegheny County and other Commonwealth counties; database administration and data warehouse development; automated outcome analysis and dashboarding through our work with Community Treatment Teams (CTT); automated reporting via our Critical Incident Management System; varied high-user identification methodologies, including, predictive modeling for Allegheny, Beaver, and Washington Counties; web-based decision support tools for many Allegheny County behavioral health programs; and IT consultation.

Given our primary goal of improving the quality of services to Allegheny County's most vulnerable populations through data driven decision making, our initial and most important collaboration will occur with DHS. From there, we expect open and productive collaborations to occur with a variety of different parties.

AHCI's operating vision of, "*The right information to the right people/place at the right time*" will be the cornerstone of our approach to solve the different issues outlines in the RFP. Using a "Rapid Data Intervention Model," we will look for opportunities to deliver critical information when and where it is needed.

All of this will occur under the umbrella of *The Center for Decision Support and Advanced Analytics* that we propose creating on behalf of Allegheny County DHS. Located at AHCI, the Center's mission will be to serve as a research and development hub for decision support and advanced analytics projects. Due to the experimental nature of this effort, we believe separating these activities, at least initially, offers the best solution by specifically distinguishing these efforts from the normal data activities provided by DHS. AHCI is best suited to implement and manage this Center since, as an external entity, we have been able to be highly responsive to client requests and provide greater flexibility than working within government and political environments. We are positioned for this responsibility and are committed to complete accountability, as well as outstanding customer service and client satisfaction.

AHCI will utilize the following key staff in our proposed solution: Tim Casey, Project Director; Brian Mountain; Project Director; Jody Wright, Database Management; John Sperandio, Technical Support; Angela Starkey, Data Analyst; and Kelly Primus, Subject Matter Expert.

Our funding request for the creation and operation of the Center is $354,568 for the first year.

Organization Description

1) **Describe your organization's history and experience conducting research, translating research into practice, developing/validating tools built on research, developing and implementing predictive models.**

Allegheny HealthChoices, Inc., or AHCI, is a private, not-for-profit organization. AHCI was formed by Allegheny County after careful consideration of how best to achieve effective monitoring and oversight of the behavioral health component of Allegheny County's HealthChoices Medicaid program.

In addition to providing monitoring and oversight, AHCI's services have evolved over the past 15 years. Through contracts with various Pennsylvania county governments, AHCI's work has grown to include assuring quality of care, positive clinical outcomes, and cost-effective services through the:

- Management of information system development and support
- Provision of data collection, report development and production, and data analysis
- Translation of analysis into system recommendations
- Delivery of system training and technical assistance to implement recommendations and
- Evaluation of implementation efforts

AHCI takes a collaborative approach in our work with our clients. We have technical and programmatic expertise on staff, but the client has the best knowledge of their systems and initiatives. Together, ideas can be vetted and tested, solutions can be developed, and evaluation of results can be analyzed. Clients have the latitude of having as much or as little participation in various processes as they would like. For example, within our contract with the Allegheny County Department of Human Services, AHCI was instrumental in working with Allegheny County staff and the staff of the behavioral health managed care organization, Community Care Behavioral Health, to implement the evidence-based practice of Assertive Community Treatment (ACT).

ACT's value is well-established in research, and monitoring the provision of ACT to assure services follow the evidence-based practice and meet outcome expectations is a critical responsibility for funders. The ACT model differs from traditional services in many ways: ACT teams provide a wide range of treatment and rehabilitation services (rather than referring people to other services); contact with the people they serve is more frequent; most services occur in the community; and the multidisciplinary staff share responsibilities.

Allegheny County currently has nine Community Treatment Teams (CTTs) implementing the ACT model. AHCI provided training and technical assistance during the development of these teams. This work continues with regular monitoring of the teams for fidelity to the ACT model and team and consumer outcomes.

In terms of outcomes, during the development of the teams it became clear that administrative data (based on claims information) alone would not provide the granularity that would be most

helpful in program management. Working with our County and managed care partners, AHCI created a web-based application to capture consumer-level data that could be used for monitoring evidence-based practices and outcomes monitoring.

Once a prototype was created, AHCI met with the CTT provider staff to generate feedback and questions related to the application. These comments and concerns were addressed with application updates and revisions.

CTT staff regularly enters data and are able to look up consumer level information. Additionally, AHCI runs both consumer and team level data on a monthly and quarterly basis for use in clinical management and for oversight purposes.

In an effort to increase opportunities for data-driven decision making, AHCI worked with our County, Community Care and CTT staff partners to use the application data to develop a secure, electronic dashboard that users can access through the Internet. Users can engage the dashboard to filter and run data related to:

- Housing
- Crises
- Employment
- Hospitalizations
- Judicial involvement
- Integrated dual disorder treatment
- Wellness
- Enrollment and
- Demographics

A sample of one of the CTT dashboard's screens related to housing outcomes is included on the following page. The goal for 2014 is to have of people on the team living in independent (non-congregate) housing in the community.

⊗ Close

AHCI Allegheny HealthChoices, Inc.

Year
2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 **2014**

Month
01 02 03 **04** 05 06 07 08 09 10 11 12

Quarter
Q1 Q2 Q3 Q4

County Code 🔍
AL | BE | GR | WE | WS

CTT Team 🔍

Housing Level

Housing Types

Housing Type LOS

Housing Movement   *29 moved this month.*

There are ▮ people on your caseload.

▮ are living independently.

The 2014 outcome threshold is ▮

You are at: ▮ %. (Target - ▮)

☐ Show only those that moved this month 🔍

Doe, John

Current Selections
YEAR   2014
MONTH   04

[Clear Selections]

The application and dashboard data is used to track:

- Consumer progress
- Staff progress helping consumers meet their goals
- Team outcomes, and
- System goals

It can be used to review information at a point in time or over a defined range of time. For example, one key outcome assessed for the Allegheny County CTTs is decreased psychiatric hospitalizations and increased community tenure. The County, Community Care, and AHCI regularly monitor psychiatric hospitalization data for each of the teams and for this level of care as a whole. It was through this monitoring that we found a large variance in psychiatric hospitalization utilization. In 2013, the number of hospital admissions ranged from ███ by team. In addition to consumer tenure in the community, this also had financial implications as well.

Together, we addressed this issue with the teams. We recognized that, while promising, these results could also be improved. The ongoing analysis was used to inform training and technical assistance efforts. It has also been used to develop a pilot that provides incentive payments for two of the CTT team providers if they meet targets for increasing community tenure for consumers by reducing psychiatric hospitalization utilization.

2.) Describe relevant experience in working with human services practitioners (including government analysts, clinicians, social workers, leaders).

AHCI has a wealth of experience working with a variety of human services stakeholders. We have worked with administrators, analysts, IT staff, clinical/services staff and others to develop applications, inform data analysis, and collaborate on system solutions based on that analysis. This work includes discerning various stakeholder needs and priorities, using this information to inform development, providing opportunities for testing and feedback, incorporating feedback into design, implementing solutions, and continually evaluating performance and areas for improvement.

Specifics on our experience with different stakeholders are included below.

- Allegheny County Department of Human Services (DHS)

AHCI believes in the value of data driven decision making and encouraged the County to use the advent of the HealthChoices program as an opportunity to further this type of work. AHCI developed a data warehouse for Allegheny County to integrate "base funded" behavioral health and HealthChoices program behavioral health data. The integration of this data provides the County with a more complete picture of what is happening within the system and with individuals.

Over time, data on participation with the Office of Children, Youth and Families, state mental hospital utilization, involvement with Juvenile Probation, and incarceration details have been

integrated into the data warehouse. The warehouse is built on an open systems platform that easily allows data to be shared for research purposes, and analysis and reporting.

AHCI also has experience working with Allegheny County staff on application development. AHCI supports the County's desire to look beyond administrative/claims data and focus on system, provider, and consumer outcomes. This includes the need to be able to tie data, such as information from the CTT application, to other data sources, such as state mental hospital utilization.

The foundation of all application development in Allegheny County is the data warehouse. With this solid foundation, AHCI was able to implement applications for Allegheny County related to the following:

- Community Treatment Teams;
- Acute Community Support Plans (ACSP);
- Critical Incident Management;
- Extended Acute Care (EAC) Management;
- Justice Related Services (JRS);
- Re-Entry Program;
- Residential Referral Tracking;
- Adult Residential Treatment Facility (RTF-A) Management; and
- Individual Placement and Support (IPS) Supported Employment Outcomes.

Of course, data capture and storage is only half the picture. Data output is also essential. AHCI has also worked with County staff on data analysis and customizing reports for their use in strategic planning, managing services, and system outcomes. Allegheny County DHS senior management grown accustomed to AHCI's responsiveness to requests for information and analysis. AHCI is able to turn data requests around in hours and days versus weeks and months. It is this attention to customer service, in addition to our technical skills and human services knowledge, that we will bring to this project.

- <u>Washington County Behavioral Health and Developmental Services</u>

AHCI began its relationship with Washington County staff, providers, consumers, and advocates as part of the collaboration that worked on the downsizing and eventual closure of Mayview State Hospital. In addition to assisting with the management of discharge planning, service development, data warehouse development and integration, and fiscal negotiations with the state, AHCI also began working with Washington County on a redesign of their service system. The County wanted to transform their service system so that there was greater accountability, quality, and attention to outcomes.

This effort began with a needs assessment of the service system. Multiple interviews were conducted with stakeholders that included both large and small providers for adults and children's behavioral health and developmental disability services, consumers and consumer-run programs, advocates, County program and fiscal staff, and the County Mental Health and Mental Retardation Advisory Board. Using this information, plus data analysis, a picture of the strengths, needs and opportunities of the service system became apparent. AHCI then developed

a comprehensive report that included recommendations for implementation, and began assisting Washington County with its implementation plan.

As part of this work, AHCI assisted with the development of quality measures, the revamping of the contracting process, the operationalization of recovery principles, and the strategic use of data in decision making. As part of the latter effort, AHCI recommended that the County work to improve base data collection and suggested collaborating with their HealthChoices managed care organization as the most efficient way to do this. AHCI served as a primary consultant for the design and implementation of the base data clean-up and integration effort. This was successfully implemented in the fall of 2013.

AHCI has also worked with Washington County staff in the conversion of program funded payment mechanisms to fee for service for base-funded services for greater fiscal accountability and for strategic decision making and planning. This also included developing and implementing reports related to this effort.

- Beaver County Behavioral Health and Developmental Services

As part of Beaver County's Substance Abuse and Mental Health Services Administration (SAMHSA) System Transformation grant, AHCI partnered with Beaver County staff and stakeholders to design, develop, and implement the County's electronic Service Plan (eSP). eSP is a secure, web-based application for the County's Single Point of Accountability (SPA / case management) users. It provides an online repository for consumer tracking and contact information across 18 different measures, and serves as the foundation for Beaver County's data warehouse. The data warehouse combines County base-funded and HealthChoices behavioral health service utilization data with the County's grant activity data.

Extensive customization and redesign occurred in the development of eSP. Many stakeholders were involved, primarily through the Beaver County SPA committee. Participants on the Committee include representatives from all four SPA providers, County crisis services, County administration, consumer representation through the County recovery coordinator, and the County managed care organization, Value Behavioral Health.

A key feature of eSP is the standardized consumer Crisis Prevention Plan, which is used by all Beaver County SPA providers. These consumer plans are accessible by on-call SPA staff, county crisis services, and emergency department staff in Beaver County. Another feature of eSP is its associated provider functionality. With the consumer's permission, this functionality allows residential, behavioral health, and substance use providers to have read-only access to a consumer's eSP record, including the Crisis Prevention Plan.

- Chester County Department of Mental Health/Intellectual and Developmental Disabilities and Fayette County Behavioral Health Administration

AHCI's work with Chester and Fayette Counties exemplifies our flexibility and customer focus. Both Counties required the development of a data warehouse to integrate data from various sources, as well as reporting capabilities. However, each County requested different implementation plans.

In Chester County, the hardware and software are located at the County site. AHCI worked to facilitate data transfer from their managed care organization to AHCI, and ultimately to Chester County, per the County's request. AHCI developed the OLAP reporting mechanism, which County staff runs locally.

For Fayette County, the data warehouse also resides at the County's facilities and AHCI worked with the County on the server and database design. Fayette County, however, requested that AHCI continue to produce reports for the County related to service utilization, capitation, and a cohort of consumers who are high utilizers of service.

- Community Treatment Team Providers

As stated in response to Question #1 of this RFP, AHCI has been working with CTT providers for over 10 years on data collection, analysis and reporting. We have used provider/clinician feedback to refine the CTT web-based application and to develop and implement the CTT dashboard. All this was done with the active involvement of providers at each step of the process.

- re:solve

re:solve crisis services clinical staff were looking for a way to better serve the people accessing their programs. With Allegheny County's permission, AHCI worked with re:solve to provide them with access to a web-based application that allows them to do real time look-up of other services used by people who access crisis services. With this capability, re:solve staff are able to contact a person's CTT team or service coordinator to collaborate on crisis interventions and transition plans, as well as provide improved continuity of care.

- Various Service Providers

AHCI collaborates with providers on an ad hoc basis to assist them with data reporting and analysis. This has included working with providers to develop reports on market share, service utilization, costs, and outcomes reporting.

3.) Describe any collaborative projects on which your organization worked, naming partner organizations.

AHCI has experience collaborating with a variety of organizations on everything from major system changes, to focused data analytics, and everything in between. We are aware of our strengths and the value of partnering with others to make a potentially good product even better. The following represents a summary of these relationships and projects:

- Mayview Regional Service Area Planning

In 2005, AHCI began a collaborative process with Allegheny, Beaver, Green, Lawrence and Washington Counties to downsize Mayview State Hospital. With the success of that endeavor, these Counties asked AHCI to serve as the project manager for the closure of the Hospital. It was viewed as quite a daunting task, including managing the coordination of over ▮ individuals with serious mental health issues moving into the community. AHCI was responsible for the coordination of all Community Support Plans (CSP) for the people leaving

Mayview. This was effort was successful because of the development and maintenance of collaborative relationships with the Department of Public Welfare, community behavioral health providers, consumers, and advocates as we managed the process. AHCI led the fiscal negotiations on behalf of the five-county region, and the Counties received the largest per-bed payment (via CHIPP funds) for the region. This success was a direct result of navigating complicated political waters with government officials, managing the expectations of families, consumers, and the advocates and peers working to ensure the closure's success. From a technical perspective, AHCI worked to ensure the development of data warehouses, a variety of applications, and a website to disseminate information to relevant stakeholders.

- **CMS Adult Quality Measures Grant**

The Office of Mental Health and Substance Abuse Services (OMHSAS) and the Office of Medical Assistance Programs (OMAP) asked AHCI to assist them with their Adult Quality Measures grant for the Centers for Medicare and Medicaid Services (CMS). This has included integrating physical health and behavioral health data to analyze and report on initiation and engagement for people with substance use disorders. Once the data analysis and reporting were completed, AHCI worked with the County, Community Care, OMAP and OMHSAS to convene a stakeholder group comprised of the HealthChoices physical health managed care organizations, area hospitals, and community-based service providers. This group is working to develop an intervention to improve the initiation and engagement rates for the County.

- **Management Science Associates (MSA)**

AHCI partnered with MSA, a data analysis and market research organization, on a project using predictive modeling to determine the likelihood of psychiatric inpatient readmissions. Together, we worked to develop models for consideration. AHCI provided the behavioral health background, knowledge and data. MSA provided the advanced statistical analysis experience.

- **Allegheny County Department of Human Services, Office of Behavioral Health**

AHCI worked with the OBH Deputy Director and staff to address the Department of Public Welfare's (DPW) request regarding utilization of psychiatric inpatient services by individuals with developmental disabilities. AHCI integrated developmental disability data from the County into the existing data warehouse and matched that information against psychiatric inpatient utilization data. AHCI then created reports that informed DPW's assessment of moving developmental disability services into a managed care model.

- **Ordysy**

AHCI worked with Ordysy, a healthcare business intelligence organization, on a predictive analytics collaboration. This entailed further exploration of the use of predictive analytics to segment populations based on service utilization. Specifically, the project's aim was to deliver early-detection capabilities for the service users most likely to become the top 3% behavioral health consumers, in terms of cost.

- **University of Pittsburgh School of Social Work**

AHCI assisted researchers from the University of Pittsburgh School of Social Work with their ethnographic study of people discharged from Mayview State Hospital. AHCI provided service utilization data to the researchers that they combined with survey data for a more in-depth look at

people's satisfaction with the Hospital discharge process and their situation/circumstance at various points in time post discharge.

- Technical Assistance Collaborative (TAC)

AHCI worked with this non-profit consulting firm on their analysis of the behavioral health system. AHCI provided TAC with behavioral health data for the analysis and report. We also worked to support TAC and Allegheny County with the development of a housing plan to implement the evidence-based practice of permanent supportive housing in the County. This included data analysis, working with the stakeholder Housing Advisory Board, vetting the plan, and leading the plan's implementation and providing ongoing project management.

- Community Epidemiology Work Group (CEWG)

This multiagency Work Group is studying the spread, growth and development of drug abuse and related problems. The Work Group members are assessing drug abuse patterns, trends, and emerging problems to provide the foundation of information for a public health response. The first task the group took on was to understand patterns of substance use among youth. AHCI provided service utilization for this analysis and other stakeholders also contributed information for a more robust picture of patterns of substance use.

- Allegheny County DHS, Office of Data Analysis, Research and Evaluation (DARE)

AHCI has a collaborative relationship with DARE related to the integration and analysis of human services data. Specifically, AHCI has developed reports on behavioral health service utilization data that DARE and other County staff have used in strategic planning as part of the Block Grant funding process.

4.) Describe the way your organization or collaboration would manage the process of working with DHS to design and implement decision support tools and predictive analytics.

AHCI has extensive experience managing both large and smaller projects that require working with the client and various stakeholders. We believe that there are several key elements that have led to our success on such initiatives:

- Project management lead – While AHCI will bring multiple and diverse resources to the table for this initiative, we recognize that having a "point person" to whom questions, concerns and ideas can be targeted is helpful. We will appoint a project management lead who will bring both technical and organizational experience to this role. Having a lead will assist with reducing confusion and fragmentation, and providing continuity to the project.

- Communication – Clear and consistent communication is vital to making sure ideas and opinions are heard, solutions are considered, and feedback is incorporated into the project. Communication also needs to be a two-way process, as well as bottom-up and top-down. The project management lead will be charged with the task of assuring that

the lines of communication are kept open and that the AHCI project team speaks with one voice to facilitate clear dialogue with our client and system stakeholders.

- <u>Regular project meetings</u> – AHCI envisions regular meetings with County staff to provide project updates and problem solve. It is important that the County has the information it needs to understand the projects status, as well as a venue for addressing questions and concerns. A regular planning and implementation meeting will also assist with project communication.

- <u>Cross-Disciplinary Advisory Board</u> – Our experience has shown time and time again, that including end-users and other collateral stakeholders in the project process is invaluable. Their insights and questions help make final products better, more user-friendly, and generally more useful.

5.) Describe experience or approach to working with an existing IT vendor to implement/integrate solutions.

AHCI views existing vendors as partners in the design, implementation and adaptation of system solutions. We have a long-standing history of working with Allegheny County Department of Human Services, information technology vendors, and staff. We view it as vital to leverage the knowledge and expertise that already exist in the system and marry this with our technical expertise and wealth of behavioral health intelligence.

Moreover, we have direct experience with several HealthChoices managed care organization vendors within the Commonwealth. For example, in our contract with Chester County, we worked with Magellan of Pennsylvania to transition data from Chester's previous managed care organization vendor to a data warehouse. We have worked with Value Behavioral Health on many initiatives; including the Mayview Regional Service Area Plan and Fayette County data warehouses. Lastly, our work with Community Care, involves many IT related projects. Recently, we have embarked on a cooperative text-based analytics project that seeks to identify high-risk end users through the analysis of text within application text fields.

Our approach is the same regardless of the vendor. Our first priority is to assess the methods of operation of the particular vendor. Even when doing similar work, each vendor operates slightly differently with respect to how they do business. For example, Value tends to be more conservative in their IT designs and operations; while, Community Care inclines to be more flexible. Secondly, we attempt to promote a shared project vision by clearly communicating the goals of the project and fostering open questioning and dialogue. Thirdly, we focus on team and consensus building. Again, each vendor is slightly different, so we employ different strategies to satisfy this objective. Lastly, we clearly define roles and responsibilities.

Goals and Objectives

The primary goal of this project is to improve the quality of services to Allegheny County's most vulnerable populations leading to successful paths to recovery by using data to improve decision making. It's about getting the right information to the right people in the right amount of time. This will be accomplished via the following objectives:

Development of the *Center for Decision Support and Advanced Analytics* to serve as a national model for the use of analytics in public sector service delivery. The Center's mission will be to serve as a research and development hub for decision support, advanced analytics, and will administratively be separate from DHS' production environment. Due to the experimental nature of this effort, we believe this strategy offers the best solution by specifically distinguishing these efforts from the normal data activities provided by DHS – not unlike the strategy implemented to comply with the monitoring requirements of the HealthChoices program, which has proven successful over its entire 15-year history. AHCI's had proven success with HealthChoices through its partnership with Allegheny County. As an external entity, AHCI has been able to be more responsive and allows for greater flexibility than working within a government and political environment. There has been a clear delineation of responsibility and accountability, as well as a commitment to customer service and client satisfaction.

This model will give you the flexibility needed to experiment with new techniques without adversely affecting the current environment if results don't initially meet expectations. The Center will offer research and development functionality to assist the County in the expansion of new strategies and techniques to improve service delivery. Specific initiatives/focus areas that the Center will address are as follows:

- o **Rapidly decrease the time lag between gathering information and its delivery to direct line staff and other relevant system stakeholders**. In our current environment, the problem is not in not having enough data - in fact, plenty is being gathered. The real issues are: 1) the integration of data from various sources; 2) the amount of time between an event that triggers the data (i.e., claims, case notes, reports, etc.); and 3) being able to react to that event. It's difficult to argue that early interventions produce better results. Knowing this, we should quickly reduce the time it takes for information to reach decision-makers, and those able to make a timely impact on individuals being served. Obtaining these two items is done through the development and implementation of an integrated data set and the use of decision support tools. We've laid out a conceptual design to address this in Chart 1.

- o **The driving vision of the Center will be to develop, implement, and manage a *Rapid Data Intervention Model*** (see Chart 2) where important information is delivered to decision makers where and when they need it. Similar in concept to human services interventions, the goal will be to use data and information to intervene as early in the process as possible –redirecting consumers to more positive clinical outcomes and cost reduction. As depicted in Chart 2, by using improved systems integration and advanced analytics to "push" decision support data to end-

users in real-time, we may finally be able to offer tools that are proactive instead of reactive. Moreover, the model will utilize machine learning, where the analytic models are constantly being updated and adjusted.

Chart 1.

Center for Decision Support and Advanced Analytics
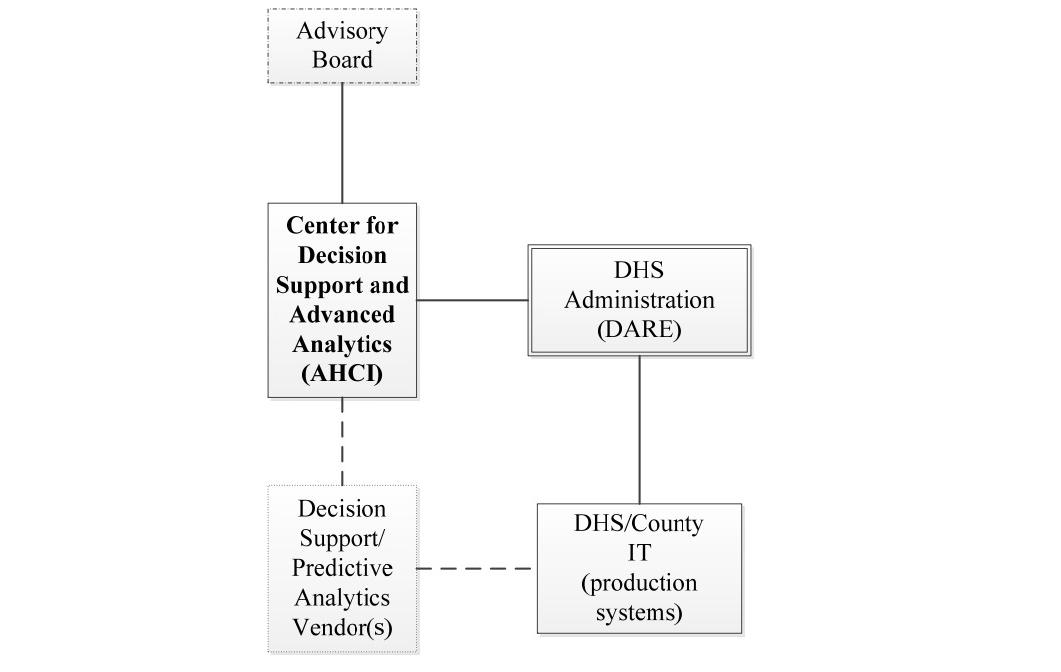
- o **Develop and utilize advanced analytic techniques to leverage existing and future data sets.** Innovative analytics and modeling have proven successful in a variety of different environments. That said, their use in human services is still in its infancy. Although their use offers much promise, it is important to start simply and develop long-term solutions through small accomplishments and well thought out analyses. A crucial component of this success will be to appropriately manage expectations. Utilizing AHCI's strong project management and communication skills, we are able to work with clients to understand their needs while at the same time being strategic in planning, development and implementation of solutions.

- o **Instilling a culture of data driven decision making throughout DHS.** The DHS staff that works with data have a solid understanding of the information available to them. Those on the program side are sometimes less familiar with requesting, reviewing, and putting that information to use. By including these key participants in all aspects of the process, and allowing them to identify the needs as well as the roadblocks, the overall outcomes will exponentially grow. AHCI continues to be a proponent of sharing information with all stakeholders and it has been a main factor in our success: everyone needs to be a part of the solution.

Chart 2.

Rapid Data Intervention Model
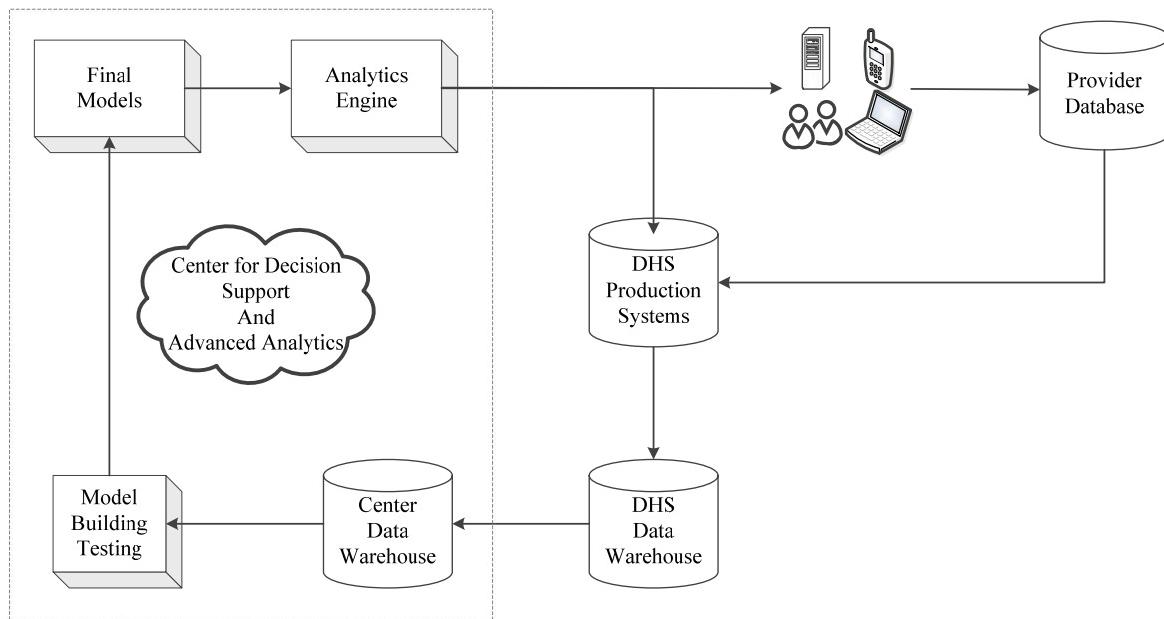
2. **Leverage existing system expertise to develop comprehensive solutions.** AHCI staff is comprised of local behavioral health experts in information systems, data analysis, service system design, and quality improvement. The key to any comprehensive analysis is to ensure that you have all the puzzle pieces. AHCI has the knowledge of the behavioral health system, integrated data from other systems, and a keen ability to bridge gaps and partner with others who have a deeper grasp of areas in which we are less knowledgeable. While DHS has done an excellent job collecting and integrating data, to reach the next step, there must be analysts in place for each part of the service delivery system. AHCI will bring that expertise. Further, AHCI has been a system leader in project management, working successfully with many disparate stakeholders, managing a variety of interests, and forming strong partnerships which have led to system successes.

AHCI's behavioral health knowledge is unmatched. We have a well-tested, systematic process by which we gather data, run reports, and analyze the findings. From there, in concert with input from stakeholders, we disseminate those results and offer solutions. Further, we are able to implement, train and evaluate progress made from those solutions. No other organization has the depth and breadth of expertise within the Allegheny County behavioral health system.

Services to be Delivered

AHCI proposes a consulting relationship with Allegheny County as follows:

1. **Creation, development and management of the "Center for Decision Support and Advanced Analytics."** As previously noted, AHCI will develop and manage the Center on behalf of the County. Its mission will be to serve as a research and development hub for decision support, advanced analytics, and will administratively be separate from DHS' production environment. As part of the development, AHCI will research best practices and current national efforts. We have no interest in duplicating the efforts of others. In fact, an objective of the Center would be to act as learning repository of local and national efforts surrounding decision support and advanced analytics in human service delivery. Creation and development of the center will be comprised of the following activities:

   a. **Work with DHS on the finalization of administrative roles and responsibilities.** Although we are presenting what we think is the best solution for DHS, we believe it is necessary to ensure that all stakeholders share in the same vision. During this stage we will meet with DHS staff to finalize the design. In addition to the use of AHCI resources, we will work with DHS management to identify current staff that will participate in Center's activities. One key to the Center's success is to have motivated individuals with diverse opinions and backgrounds, most importantly DHS staff interested in participating in the activities of the Center.

   b. **Formulation of a Strategic Advisory Board to serve as expert advisors on advanced analytics**. Given the nature of new technologies, we believe it is essential that we have outside expertise to provide advice and help guide projects. We propose to seek members who have detailed expertise in the area of advanced analytics and are interested in the need for public sector human services. We envision a core group with additional consulting members brought in to satisfy particular needs. The Advisory Board will hold regularly scheduled meetings but will also serve as a resource between meetings as needed.

   c. **Manage advanced analytical projects.** The Center would be responsible for the management of advanced analytic projects. This would consist of all necessary activities to ensure the best possible results, including project management, data analysis, report development, training, and the dissemination of information.

   d. **Detailed analysis of current DHS data environment and analytical activities and expertise**. Often current resources and expertise are overlooked when consultants are brought on. Alternatively, we propose a review of DHS' detailed analysis of the current data and analysis environment with the goals of knowledge acquisition and uncovering potentially hidden assets.

2. **Identify opportunities for decision support and advanced analytic projects.** We believe that it is in the best interest of DHS to discontinue looking for specific analytical vendors until there is an internal infrastructure in place. By bringing our two organizations together around the Center, DHS will be in a much stronger position to pursue long-term goals. If

analysis is beyond current AHCI expertise, directly assist county on finding vendors to perform detailed analytical work. Several AHCI staff has experience in predictive modeling techniques. However, we acknowledge that we don't currently possess all of the expertise to solve all of the problems outlined in the RFP. We propose that all requests coming into the Center be assessed to determine whether they could be done by current AHCI staff. If not, the Center, under the direction of DHS, will manage the procurement of additional assistance/consultation.

3. **Develop learning collaboratives to discuss issues and share findings**. Complicated analyses need extensive vetting to ensure that proper findings are reported. We propose the development of a learning collaborative to share findings and discuss issues.

4. **Foster an analytical environment throughout DHS and the provider communities.** For a project of this magnitude to truly work, the results must be understandable and utilized by the entire DHS community – from administrators to case workers. An environment where information is used to make informed decisions offers the best opportunity for positive outcomes. With the changes to payment mechanisms brought forth through the ACA, regulatory changes and restrictions, and the ongoing struggle to maintain adequate funding through the Commonwealth, a more responsive, well-educated staff and timely access to critical information is the key to the success of the DHS system.

Integration with Other Technology and Tools

AHCI believes that integrating data is the cornerstone of comprehensive analyses. We have a long history as data integrators and operate under the policy, unless prohibited by law, that all data be integrated. Our integration efforts with different counties throughout the Commonwealth have exposed us to a variety of systems architectures. As depicted in Chart 2, we propose the following process:

1. DHS production database systems and data warehouse will continue to serve as the main data collection repository for all decision support and advanced analytics work. That is to say that, current DHS systems will be the integration center of all data used by the Center.

2. Using automated procedures, the data required for decision-support and analytic models will be transferred to the Center's data system.

3. Model development and testing will occur at the Center.

4. Upon finalization of the model(s), results will be directed to several possible locations depending upon the goals of the particular project and the nature of the model: provider data systems, end-user devices, DHS production systems, etc.

5. Models will continue 'learning' as new data becomes available. In other words, we will create a feedback loop so the models can update themselves as new information is generated by the system.

Timeline

Activity	Start Date	End Date
Finalize project roles and responsibilities	09/01/2014	09/30/2014
Review of DHS data environment	09/01/2014	09/30/2014
Establish Center: • If necessary, Purchase and installation of equipment (Servers, Storage, Software licenses) • Recruit Advisory Board members and hold kickoff meeting • Hold quarterly Advisory Board meetings • Interview subject matter experts both within DHS and externally • Work with DHS to identify analytic partners	 10/01/2014 10/01/2014 01/01/2015 10/01/2014 10/01/2014	 10/31/2014 12/31/2014 ongoing 10/31/2014 11/30/2014
Identify first project/develop implementation plan for consideration and approval by DHS.	01/01/2015	01/31/2015
Hold regular meetings with DHS	09/01/2014	ongoing
Begin plan and implementation of initial project	02/01/2015	tbd

Our timeline assumes a start date of 09/01/2014. Upon start of the project, we will meet with DHS to begin the finalization of the roles and responsibilities and review of the current data environment. Once these are completed, we will get to work on the establishment of the Center. We expect to have the Center up and running by 12/31/2014. Next, we will be ready to meet with DHS to identify the first project. Our goal is to begin planning and implementation of the first project on 02/01/2015.

Examples of Tools Already Developed

AHCI believes in developing applications that allow workers to use data as a tool in making improved service decisions that best address the needs of consumers. In the Appendix, we list applications that assist end users with decision support.

Furthermore, we described our efforts with advanced analytical methods. Our latest effort, *High Risk Probability Risk Model* was completed entirely by AHCI. As part of an initiative to identify individuals at risk for State Mental Hospital admission, we embarked on a project that would give decision makers the ability to assess the relative risk of consumer admissions through an easy to use webpage. Some of the details of project are as follows:

Administrators of the Mayview Counties were asked to identify those individuals who were at high-risk of admission to a state hospital level-of-care and/or were extremely difficult to serve. Staff from AHCI then interviewed relevant stakeholders to determine the characteristics of these individuals that made them at-risk. Using the characteristics identified, we employed text-mining techniques, in addition to data already available, to assess how many other consumers looked similar in the greater population (Allegheny County only). Using predictive modeling software,

we developed a risk profile model that assigns a risk probability score to individuals based on responses to a limited set of questions.

The next step for this model is to use data from the other Mayview counties to improve the model.

Staffing Plan

The following is our staffing plan for this project. It is comprised of individuals with vast experience in human services information systems, data analysis, and quality improvement.

Name	Title/Role	Qualifications
Tim Casey	Chief Information Officer/ Project Director	Over 20 years experience in human services research, evaluation, and information management.
Kelly Primus	Director, Quality Improvement/ Subject Matter Expert	Over 20 years experience in healthcare and human services.
Jody Wright	Database Administrator and Senior Application Developer/ Database Management	Over 18 years experience in systems development, with 15 years spent in a human services setting.
Brian Mountain	IT Generalist, focusing on web development and advanced projects/ Project Manager	Over 10 years experience in web development and data analysis with 5 years experience in human services.
John Sperandio	Manager of Technical Services/ Technical Support	Over 15 years experience in IT infrastructure including servers, networking and virtualization.
Angelica Starkey	Sr. Policy Analyst/ Data Analyst	Nearly 5 years experience in human service evaluation and research. Possesses DrPH in Public Health with a specialty of Behavioral and Community Health Sciences.

In Chart 3, we have outlined our proposed organizational chart.

Chart 3.

Center for Decision Support and Advanced Analytics
Organizational Chart


```
                          ┌──────────────┐
                          │   Advisory   │
                          │    Board     │
                          └──────┬───────┘
                                 │
┌───────────────────┐    ┌───────┴────────────┐
│ Decision Support/ │◄───│     Center for     │
│ Predictive        │    │ Decision Support   │
│ Analytics         │    │ and Advanced       │
│ Vendor(s)         │    │ Analytics (AHCI)   │
└───────────────────┘    └───────┬────────────┘
                                 │
┌───────────────────┐    ┌───────┴────────┐
│     Subject       │◄───│   Tim Casey    │
│     Matter        │    │ Project Director│
│  Consultation     │    └───────┬────────┘
└───────────────────┘            │
                         ┌───────┴────────┐
┌───────────────────┐    │ Brian Mountain │
│    Technical      │◄───│ Project Manager│
│  Consultation     │    └───────┬────────┘
└───────────────────┘            │
```

| Jody Wright Database Management | John Sperandio Technical Support | Angelica Starkey Data Analyst | Kelly Primus Subject Matter Expert |

References

The following references will be able to address relevant experience with our organization.

Name	Affiliation	Contact Information
Catherine Greeno, Associate Dean for Research	University of Pittsburgh School of Social Work	2204 Cathedral of Learning 4200 Fifth Ave Pittsburgh, PA 15213 (412) 624-5292 kgreeno@pitt.edu
Gerard Mike, Director, Behavioral Health and Developmental Services	Beaver County Behavioral Health and Developmental Services	1040 Eighth Avenue Beaver Falls, PA 15010 (724) 847-6225 gmike@bcbh.org
Deborah Wasilchak, Chief Government Contracts Officer, Community Care	Community Care Behavioral Health Organization	One Chatham Center Suite 700 112 Washington Place Pittsburgh, PA 15219 (412) 395-1503 wasilchakds@ccbh.com

Appendix

Examples of Tools/Systems Already Developed

Decision Support Applications		
Project	**Customer(s)**	**Description**
Community Treatment Team Application (CTT)	Allegheny County DHS and regional CTT Teams.	CTT consumer tracking and outcome application.
Acute CSP	Allegheny County DHS	Management application for Community Support Planning.
Consumer Inquiry	Allegheny and Mayview Counties.	Consumer service lookup application.
Critical Incident Management System.	Allegheny and Mayview Counties.	Incident management application including rapid notification and reporting.
CTT Dashboard	CTT Teams in various counties	Visualization platform depicting various CTT measures.
Extended Acute Care (EAC) Management System	Allegheny and Mayview Counties	Manages utilization of EAC service system.
Justice Related Services (JRS) – PCCD	Allegheny County	Collect JRS Drug Court data.
JRS Index Application	Allegheny County	Data collection and reporting.
Re-Entry Program Application	Allegheny County	Collect Re-Entry Program data.
Residential Referral Tracking Application	Allegheny County	Data collection and reporting
Adult Residential Treatment Facility (RTF-A) Management System.	Allegheny and Mayview Counties	Manages utilization of RTF-A service system
Individual Placement and Support (IPS) Supported Employment Outcomes System.	Allegheny County	Data collection and reporting.
System Barriers Application	Allegheny County	Data collection and reporting.
AHCI Data Warehouse	Allegheny and Mayview counties	Data warehouse containing HealthChoices data, base-funded MH and D&A data, and associations with other data sources including CYF, JPO, DPW SMH data as well as data from AHCI-developed applications.
Fayette County Data Warehouse	Fayette County	Contains data for Fayette HealthChoices program including membership, eligibility, authorization and claims data.

Chester County data warehouse	Chester County	Contains HealthChoices data for Chester County including membership, eligibility, authorization and claims data.
CTT Dashboard	Allegheny and Mayview counties	Based on the Qlikview product, this portal allows for "self-service" reporting and extract of CTT application data.
Online Analytical Processing (OLAP)	Allegheny, Fayette, Chester and Mayview counties	Based on IBM Cognos' BI suite, provides for a "self-service" portal for use by financial and quality analysts.
Beaver eSP	Beaver County	Tool for Single-Point-of-Accountability system staff to log and track key consumer information. Used to improve coordination of care and communications within service planning system.
Predictive Modeling Efforts		
Project	**Customer(s)**	**Description**
Segmentation Analysis of Inpatient Utilization (in partnership with Management Science Associates)	Allegheny County DHS	Exploratory data analysis, segmentation analysis, and a specific modeling analysis were completed with inpatient MH utilization data in order to study possible segments and predictive models in the population.
Service User Lifetime Predictive Analytics Models (in partnership with Ordysy)	Allegheny County DHS	A predictive ensemble model that delivers early-detection capabilities on service users most-likely to become the top 3% most-expensive behavioral health consumers..
High Risk Probability Risk Model	Allegheny and Mayview Counties.	A predictive model that provides a risk probability score of being a member of a High-Risk cohort. Model identifies the most important factors and produces a risk score between 0 and 100. Factors and score are available through webpage.

Budget
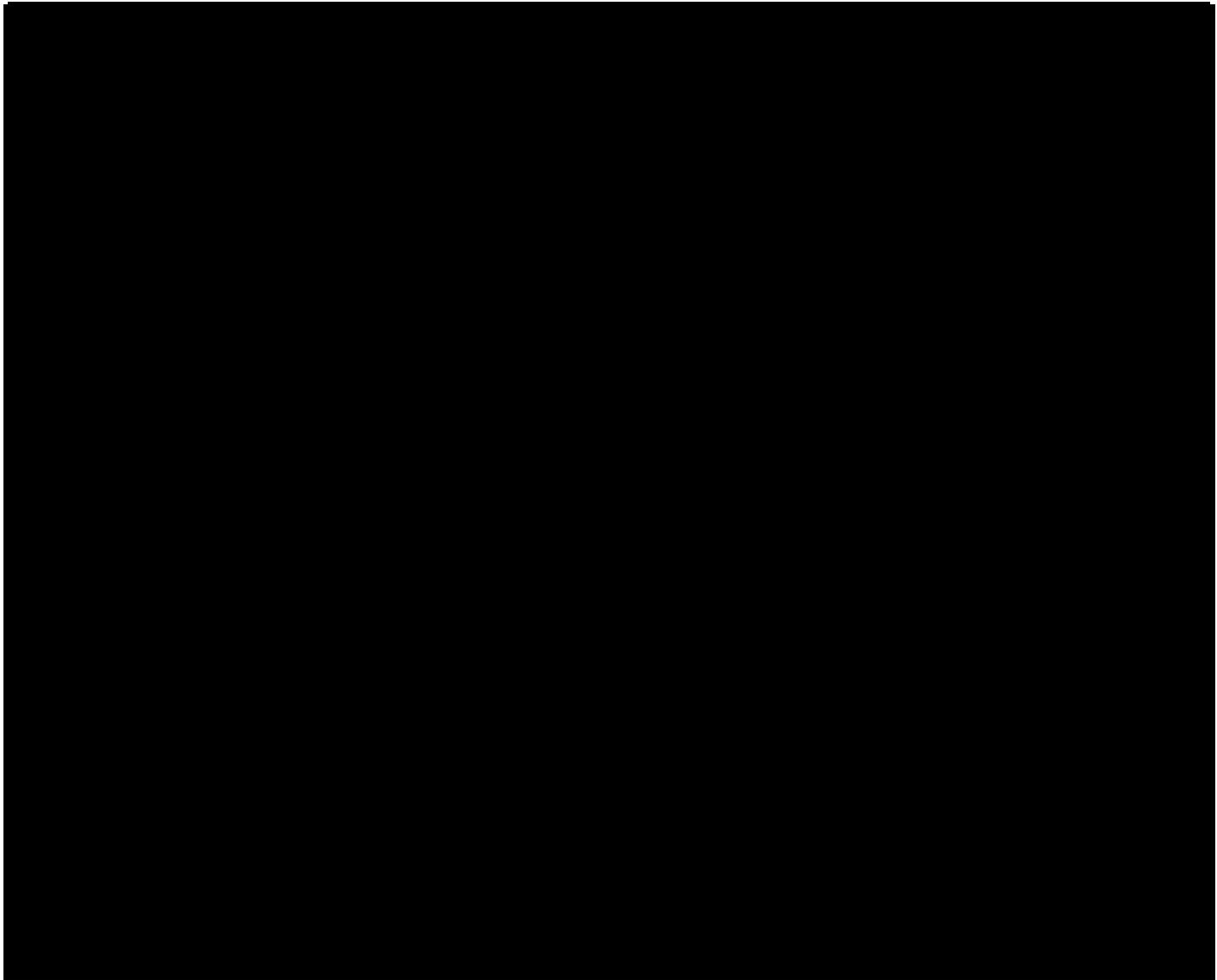
Resumes

Timothy M. Casey

FAX 412-325-1111 • E-MAIL casey@ahci.org

Summary of Qualifications

- Twenty years management experience.
- Over twenty years healthcare experience.
- Twenty-five years of data management and data analysis experience.
- 2010 Pittsburgh Technology Council's CIO-of-the-Year (Non-Profit)

Employment

1999 - Present   Allegheny HealthChoices, Inc. – Pittsburgh, PA
Chief Information Officer

- Responsible for the setup of a Management Information System to be used in the operation of Allegheny HealthChoices; including: vision, design, strategic planning, project management, policy and procedure formation, and coordination with Allegheny County Department of Human Services. Ultimately responsible for managing and assuring the quality of information services for the HealthChoices program offered by Allegheny County. Accountable for all technological initiatives for the program to simultaneously assure high quality member, provider and constituent service as well as integrity of information.
-

1992 - 1999   Great Lakes Behavioral Research Institute – Pittsburgh, PA
Performed the following functions as a contract employee to the Allegheny County Department of Human Services.

Information Officer for Behavioral Health Services

- Ultimately responsible for the planning, analysis, procurement, installation, operation, and maintenance of all computer systems which supports the operations of the Allegheny County Department of Human Services. Systems include office automation, electronic mail, network, file, and printing services.

Information Systems/Evaluation Coordinator

- In cooperation with the IS Directors, responsible for coordinating the planning, analysis, procurement, installation, operation, and maintenance of all computer systems which supports the operations of the Allegheny County Department of MH/MR/DA. Systems include office automation, electronic mail, network, file, and printing services.

Supervisor, Office of Evaluation

- Responsible for the administration of a five-person team who designed, implemented, and managed various evaluation projects. Additional responsibilities included the co-administration of the Management Information Systems section.

Evaluation Specialist

- Assisted in the design, implementation, and analysis of various evaluation projects.

Unified Systems Evaluation and Data Coordinator
- Coordinated all client-specific evaluations stemming from the Unified Systems Project (closing of Woodville State Mental Hospital); including, all data and statistical analysis and reporting.

Data Consultant
- Assisted the Unified Systems Evaluation Coordinator with data analysis of client-specific evaluations.

1990 - 1992   Duquesne University
Policy Center Manager
- Responsible for directing all research and computer activities for Public Policy Center, including data management and statistical analysis.

Education

1992   Duquesne University   Pittsburgh, PA
MA/Social and Public Policy/Social and Political Research
1987   Alfred University   Alfred, NY
B.S.B.A/Management Information Systems & Marketing

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PROFESSIONAL EXPERIENCE:

Allegheny HealthChoices, Inc., Pittsburgh, Pennsylvania
> **DIRECTOR OF QUALITY IMPROVEMENT** 2000 – Present
>> Part of senior management team for non-profit organization that monitors Medicaid managed care program. Participate in strategic planning and operational management. Responsible for contract compliance, and quality oversight and monitoring. Conduct system and process analysis and problem identification. Achievements include:
>>
>> - Translating complex findings into understandable and useful reports for clients and the community at large. Report topics have included analysis of clinical and fiscal impact of: service utilization; recidivism; permanent supportive housing; supported employment; and utilization of State hospitals. (www.ahci.org)

> **DIRECTOR OF TRAINING & TECHNICAL ASSISTANCE** 1999 – 2000
>> Directed training, technical assistance, and ombudsman activities. Achievements include:
>>
>> - Developed a training needs assessment survey for network providers. Using survey results, organized six-day Training Institute on outcomes management to improve system capacity.
>> - Implemented technical assistance sessions for provider organizations on the principles of continuous quality improvement (CQI).
>> - Designed and created organization's original web site.

Freelance Work
> **WRITER/EDITOR** 1999 – 2002
>> Write and edit behavioral health content for various clients' marketing projects.

ValueOptions, Falls Church, Virginia & Southwestern Pennsylvania
> **ACCOUNT EXECUTIVE** 1998 – 1999
>> Implemented the HealthChoices program for an eight county region in Southwestern Pennsylvania. Served as liaison between internal departments and clients. Managed contract administration, product design and development, and operational issues. Evaluated program effectiveness and reported on account status. Achievements include:
>>
>> - Coordinated timely submission of policies, procedures and other required deliverables to the Commonwealth of Pennsylvania.
>> - Facilitated the Commonwealth of Pennsylvania's on-site audit and readiness review.
>> - Assisted with operationalizing new regional service center.

> **PROGRAM SPECIALIST/PROPOSAL WRITER** 1996 – 1998
>> Coordinated marketing efforts to acquire new business and retain existing accounts. Assisted sales and marketing senior management in the strategic design of statewide and regional managed behavioral health care programs for publicly funded and commercial services. Achievements include:

- Managed the development and production of client-specific proposals, including submissions resulting in the award of new contracts in the Commonwealth of Pennsylvania, New Mexico, Texas, and with various commercial health care plans.
- Led interdisciplinary teams as part of the proposal development process that included external clients and corporate utilities such as claims, finance, clinical operations, and information systems.

Community Residences, Arlington, Virginia

DIRECTOR OF COMMUNITY RELATIONS   1994 - 1996

Directed the marketing, public relations, and communications for a regional, non-profit human services organization with a $10 million budget. Coordinated and developed proposals for supplemental funding and award opportunities for the organization. Conducted feasibility studies and marketed the company's core technologies. Supervised project management for new program development. Achievements include:

- Developed a proposal to the Department of Housing and Urban Development resulting in funding of the area's first safe haven for homeless mentally ill individuals with a history of resistance to treatment.
- Worked as part of the corporate leadership on 5-year strategic plan.
- Established media relations activities to increase press coverage, including art exhibit of consumer art during Mental Health Awareness Week.
- Conducted annual satisfaction surveys for clients, stakeholders, and Board members.

Volunteers of America, Baltimore, Maryland

DIRECTOR OF MARKETING & RESOURCE DEVELOPMENT   1993 - 1994

Coordinated marketing, public relations, and fund raising for local affiliate to national, non-profit human services agency. Achievements include:

- Developed grant proposals for foundation, corporate, and government funders that led to supplemental funding for program enhancements and the expansion of case management, mental health, and homeless programs.

Brakeley John Price Jones Inc., Stamford, Connecticut / Washington D.C.

CAPITAL CAMPAIGN ASSOCIATE   1992 - 1993

Developed grant proposals for foundations and corporations. Designed training materials and newsletter articles. Conducted prospect research and solicitations. Achievements include:

- Created customized proposals resulting in over $2,000,000 worth of funding for capital campaign conducted on behalf of the Salvation Army.

EDUCATION:

Master of Science in Communications
S.I. Newhouse School of Public Communications, Syracuse University

Bachelor of Arts in Communication
University of Pittsburgh, Johnstown, PA

Jody Paul Wright
1737 Holmes Dr.

███████████████

PROFESSIONAL SUMMARY

- Proven track record managing all phases of Software Development Life Cycle (SDLC).

- Designed, built, documented, tested and leveraged applications and relational data warehouses in deadline-oriented environments.

- Talented communicator, adept at working in both individual and team settings, and creating strong relationships with coworkers.

- Analytical thinker, proficient at identifying and resolving technical problems.

TECHNICAL EXPERTISE

Languages: PL/SQL, SQL, TSQL, IBM PowerHouse, VB, PHP, HTML
OS: Windows 9x/NT/XP/2000/2003, UNIX, IBM Mainframe, VAX System
Databases: MS SQL Server, Oracle, MS Access, IBM DB2
Tools: IBM Cognos ReportNet, IBM Cognos Analysis Studio, Pervasive Data Integrator, Adobe Dreamweaver, MS Office, VB, Business Objects, FOCUS, COBOL / JCL

PROFESSIONAL EXPERIENCE

Allegheny HealthChoices, Inc.   Database Administrator   July 2001 – Present

- Design, develop, document and test SQL Server tables, views, stored procedures and triggers to support a data warehouse while implementing best practices to maintain optimal performance.
- Gather requirements, design, create and manage IBM PowerHouse web applications to import data into SQL Server database.
- Extract, transform, and load data from multiple sources and formats into SQL Server database.
- Meet with report users to design, develop, document and test IBM Cognos OLAP cubes.
- Generate effective reports and ad hoc queries using formulae, sections, breaks and filters.

MED3000   Programmer / Analyst   November 2000 – June 2001

- Assisted in the design and development of a VB web based application connected to an Oracle database for users to enter information and produce reports.
- Coded PL/SQL procedures to load data into an Oracle database.
- Designed Universes, repositories of data taking away the complexity of the database for end user's reporting needs, with Business Objects Designer.
- Developed reports using Business Objects and Web Intelligence tools.

Keane, Inc.   Programmer / Analyst   November 1996 – May 2000

- Developed VB script files, Data Junction jobs and SQL stored procedure to load data on demand into a SQL Server data warehouse.

- Implemented an OLAP solution for users to query data using Conos Transformer, Impromptu and PowerPlay.
- Assisted in the design, development and testing of an Access application that included data entry forms, queries and reports.
- Designed, coded and tested a user interface that was part of a two-tier application using VB and SQL Server.
- Built FOCUS databases on a RS/6000 running UNIX scripts.
- Supported clients and developed end user reports using a wide variety of software including Crystal Reports, Cognos Impromptu, Cognos PowerPlay, FOCUS and COBOL.
- Wrote program specs, executed test plans and developed estimates.
- Assisted in the design of a Lotus Notes database containing a client's current methodology.

ANGELICA J. STARKEY, DrPH, MPH

███████   ██████████████████████

EDUCATION

University of Pittsburgh, Graduate School of Public Health   **Pittsburgh, PA**
Doctor of Public Health, Behavioral and Community Health Sciences, *April 2011*
- Evaluation of Public Health and Health Education Certificate
- Minority Health and Health Disparities Certificate

Master of Public Health, Behavioral and Community Health Sciences, *April 2004*

The Pennsylvania State University, Eberly College of Science   **State College, PA**
Bachelor of Science, Microbiology, *May 2001*

PROFESSIONAL EXPERIENCE

Allegheny HealthChoices, Inc.   Pittsburgh, PA
Senior Policy Analyst   Mar 2013 – Present
Responsible for analyzing and reporting on service utilization as well as financial and outcomes data related to behavioral health Medicaid managed care services, programs, and initiatives. This includes translating complex findings into understandable and useful reports for system stakeholders and customers, and conducting statistical analyses as appropriate.

Family Resources   Pittsburgh, PA
Program Evaluation Manager   Aug 2010 – Mar 2013
Provided leadership in the design, development, quality and implementation of agency-wide evaluations in order to maintain and/or improve upon the effectiveness of all Family Resources programs.

Institute for Research, Education, and Training in Addictions (IRETA)   Pittsburgh, PA
Evaluation Intern   Aug 2009 – Feb 2010
Employed qualitative methods and analysis to conduct an evaluation of IRETA's SCAIFE Advanced Medical Student Assistantship in Alcohol and Other Drug Dependency Program to assess if previous participants' are applying knowledge gained from the program.

PUBLICATIONS

Starkey, A., Keane, C., Terry, M., Marx, J., & Ricci, E. (2012). Financial Distress and Depressive Symptoms among African American Women: Identifying Financial Priorities and Needs and why it Matters for Mental Health. *Journal of Urban Health.* doi: 10.1007/s11524-012-9755-x

PROFESSIONAL AND TECHNICAL SKILLS

Adobe Illustrator and InDesign

SPSS Base and Modeler

IBM Cognos

Microsoft Word, Excel, and PowerPoint

Program evaluation techniques and principles

Focus group design and development

Logic model development

Brian Mountain

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██████

Education

Bachelor of Computer Information Systems
        -LaRoche College

Bachelor of Management Information Systems
        -LaRoche College

Professional Experience

ALLEGHENY HEALTHCHOICES, INC. - Pittsburgh   **2009 - Present**
IT Generalist

- Designed and coded websites
- Managed user accounts
- Coded SQL queries for ad hoc reporting needs
- Collaborated with clients on the look and organization of their site
- GIS map creation
- Server maintenance
- Developed Qlikview Dashboards
- Developed web user enrollment system
- Facilitated Positive Deviance Project
- Developed Data Models for Predictive Analytics

INSUMO DESIGN - Pittsburgh   **2006 - 2009**
Owner - Web Designer and Programmer

- Designed and hand coded websites
- Managed projects from design conception to implementation
- Programmed an online retail site with a PHP/SQL based system
- Collaborated with clients on the look and organization of their site
- Managed marketing and client accounts

ACCLAMATION SYSTEMS – Pittsburgh 2003 - 2008
Programmer

- Coded accounting software in DataBus

- Assisted in the design and creation of Java applications to deploy programs
- Managed the deployment of programs to Fortune 500 companies
- Managed six project queues
- Managed the regression testing of programs

Computer Skills

- DataBus
- HTML
- XTML
- XML
- PHP
- Processing
- SQL
- Java
- Javascript
- jQuery
- C++
- COBOL
- Adobe Creative Suite
- Microsoft Office Suite
- ArcGIS
- Qlikview
- SPSS Modeler
- IBM Powerhouse
- IBM Cognos

Highlights:

- Fourteen years of experience in Windows Server Administration
- Eight years of experience in Cisco IOS administration
- Bachelor of Science in Applied Mathematics
- MCSE certification
- Experience in Microsoft Windows Server, Active Directory Infrastructure, Microsoft Exchange , IBM Domino, Microsoft SQL Server, Microsoft WSUS, Cisco IOS (firewalls, routers, and switches), and Motorola Vanguard routers, VMWare, Dell EqualLogic, and Microsoft Office
- Thorough understanding of TCP/IP networking
- Help Desk Experience
- Training/supervisory experience
- Excellent verbal and written communication skills
-

Work Experience:

Allegheny HealthChoices, Inc.

Manager of Technical Services   September 2012 – Present

Primary duties include but are not limited to:

- Supervise Technical Support Specialist
- Manage and maintain two Cisco ASA firewalls and numerous Cisco routers and switches.
- Manage and maintain two multi-member EqualLogic SAN Disk Arrays
- Manage and maintain two VMWare sites with three hosts at each site
- Ensure that all server backups are completed on a timely basis using CommVault Backup Software
- Manage and maintain Microsoft WSUS server, and Symantec Antivirus Software
- Implement, manage and maintain Zix encrypted email system
- Responsible for ensuring bills are approved to be paid on time and support contracts renewed on an annual basis
- Responsible for the purchases of all new computer equipment

Standard Bank

Network Support Specialist   March 2012 – August 2012

Primary duties include but are not limited to:

- Responsible for ensuring banking software was kept up to date
- Responsible for maintaining and monitoring Kaspersky Anti-Virus
- Responsible for managing and maintaining Microsoft WSUS server
- Responsible for managing and maintaining Zix Encrypted Email
- Responsible for ensuring backups were completed in a timely fashion using Microsoft Data Protection Manager

Parkvale Savings Bank

Network Administrator   November 2008 – February 2012   Primary duties include but are not limited to:

- Manage and maintain configurations for the bank's Cisco routers, firewalls, and switches (Includes performing upgrades and changing configurations as needed)

- Supervise and mentor Network Support Specialist
- Monitoring and assisting in the trouble-shooting of any telecommunication problems with the network, including communications to the AS/400, ATM's, and communications to remote locations
- Assist in providing help desk support to approximately 500 internal users as needed
- Ensure that all server backups are completed on a timely basis using Symantec Backup Exec 2010
- Manage and maintain IBM Domino email system
- Research, configure, and purchase computer and network equipment as needed
- Manage and maintain Microsoft WSUS server, and Symantec Antivirus Software, and upgrade as needed
- Manage, maintain, and monitor the bank's Cisco MARS device
- Manage and maintain the bank's email spam filter (Barracuda)
- Ensure that all software installations and upgrades are performed on a timely basis
- Work with various vendors to negotiate best prices on computer hardware and software

Network Support Specialist   July 2005 – January 2008
   Primary duties included:
- Administer the bank's Active Directory structure and create and assign group policies through Active Directory as needed
- Manage and maintain IBM Domino email system
- Perform backups on all Cisco and Motorola routers
- Assist in providing help desk support to approximately 500 internal users as needed
- Assist in scheduling and monitoring all server backups using Veritas Backup Exec versions 11d on a daily basis
- Image and configure all new PC's and servers for the bank's wide area network as needed
- Maintain and manage hardware and software installations for the bank and its networked users
- Perform necessary repairs, upgrades (both software and hardware), and maintenance on all computer equipment as necessary
- Manage and maintain the banks Internet filtering software and provide reports to the CIO as requested. (Includes performing upgrades as needed)

South Allegheny School District
User Account and Help Desk Manager   January 2008 – November 2008
   Primary duties included:
- Manage and maintain all computer user accounts for the school district (staff and students)
- Manage the phone and voice mail system
- Perform computer repair as needed
- Install computer hardware and peripherals (printers, projectors, smart boards, etc). as needed
- Manage and maintain the districts email spam filter (Barracuda)
- Manage the district's help desk to insure that all work orders are completed in a timely manner.

Commercial Bank & Trust of PA
MIS Technician III   June 1998 – July 2005
   Primary Duties Included:
- Configuring all new PC's and servers for the bank's wide area network as needed
- Maintaining and managing all hardware and software installations for the bank and its networked users
- Perform necessary repairs, upgrades (both software and hardware), and maintenance on all computer equipment as necessary
- Providing help desk support for Windows NT 4.0, 2000 and XP desktop operating systems, AS/400 client access workstations, and online banking customers
- Schedule and monitor all server and PC backups using Veritas Backup Exec versions 8.5 and 9.0 on a daily basis

- Monitoring and assisting in the trouble-shooting of any telecommunication problems with the network, including communications to the AS/400 and communications to remote locations
- Managing and administering the bank's Microsoft Exchange Server (2003 and 5.5)
- Perform Disaster Recovery Testing for the banks WAN in case of a disaster. This includes going to an offsite location, restoring the banks AS/400, Primary Domain Controller, and Exchange server, and connecting back to the bank via an ISDN connection
- Change Cisco router configurations as needed
- Create and update bank disclosures in Crystal Reports as needed
- Update forms on the company's Intranet as needed
- Administer the banks Active Directory structure
- Backup person for Online banking support
- Train new technicians as needed, and provide trouble shooting assistance to other technicians
- Train new operators as needed

Educational Background:
University of Pittsburgh at Greensburg, Greensburg, PA
Bachelor of Science in Applied Mathematics, Graduated 1998

Pittsburgh Technical Institute, Pittsburgh, PA
Microsoft Network Professional Program (MCSE and CCNA)
October 2004 October 2005

Additional Computer Training Courses

New Horizons	Install, Configure, and Manage vSphere 5.0	October 2012
Compumaster	Cisco Router Training	August 2001
Global Knowledge	Network Fundamentals Training Course	March 2000

References: Professional references are available upon request.

APPENDIX A
PROPOSAL AUTHENTIFICATION FORM

TITLE: Decision Support Tools and Predictive Analytics in Human Services

DUE DATE: APRIL 18, 2014

The undersigned hereby offers to furnish and deliver the services as specified in strict accordance with the RFP and scope of proposal, all of which are made a part of this request. This offer is not subject to withdrawal without permission of the County of Allegheny Department of Human Services Director.

FULL LEGAL COMPANY NAME: Allegheny HealthChoices, Inc

DOING BUSINESS AS: _____

STREET ADDRESS: 444 Liberty Avenue, Suite 240

CITY, STATE AND ZIP CODE: Pittsburgh, PA 15222

AUTHORIZED SIGNATURE: _____

PRINT NAME: Brandi M. Phillips

TITLE OF AUTHORIZED SIGNER: CEO

TELEPHONE #: (412)325-1100   **FAX #:** (412)325-1111

WEBSITE URL: www.ahci.org

E-MAIL ADDRESS: bmauck@ahci.org

Chapter 2
COMPANY INFORMATION
(This information is for tracking purposes only and has no role in the determination of the responsible proposer.)

☐ Check here if your firm is registered with the Allegheny County Department of Minority, Women and Disadvantaged Business Enterprises

☐ Check here if your firm is a "Minority Business Enterprise" or "MBE" as defined in the Small Business Act, 15 USC

☐ Check here if your firm is a "Women Business Enterprise" or "WBE" as defined in the Small Business Act, 15 USC

☐ Check here if your firm is a "Small Business" as defined by the Small Business Administration (13 C.F.R. 121.201, in most cases, this means a business with 500 or fewer employees)

NOTE: THIS PAGE MUST BE SUBMITTED WITH YOUR PROPOSAL. ALL PAGES REQUIRES A LIVE SIGNATURE SIGNED IN BLUE INK.

APPENDIX B
ABBREVIATED APPLICATION

1. Primary Contacts

	Chief Executive	Chief Information Officer	Chief Financial Officer	Contract Processing Contact
Name	Brandi M Phillips	Tim Casey		Lynann Casagrande
Email	bmauck@ahci.org	casey@ahci.org		lcasagrande@ahci.org
Phone	(412)325-1100	(412)325-1100		(412)325-1100

Note: If you are an individual applying, you may identify yourself for all of the above roles.

2. I/we certify that this I/we/this organization is not currently under suspension or debarment by the Commonwealth of Pennsylvania, any other state, county or the federal government.

■ So certified

3. Have you ever obtained or been denied a performance or fidelity bond, or has your bond ever been revoked?

☐ Yes ■ No

If yes, explain:

4. Has an application to be an Allegheny County provider/vendor been denied in the past?

☐ Yes ■ No

If yes, explain:

5. Have you ever filed for bankruptcy?

☐ Yes ■ No

If yes, explain:

6. Have your paid all taxes for the past years, including but not limited to real estate tax, employer taxes, employee withheld taxes, personal income tax (if individual)?

■ Yes ☐ No

If yes, explain: AHCI pays all employer and employee taxes as required by law.

7. Do you have the capability to do electronic billing if required?

☐ Yes ■ No

If yes, explain:

8. Do you currently carry the insurance (see contract on DHS website) required to enter into a contract with DHS?

■ Yes ☐ No

If yes, explain: AHCI is a current provider with Allegheny County and maintains all required insurance.

9. Do you/your staff have valid Pennsylvania driver licenses?

■ Yes ☐ No AHCI employees have PA drivers license but are not required as a condition of employment.

If yes, explain:

As an authorized signatory for Allegheny HealthChoices, Inc. _____ I hereby certify to the best of my knowledge and belief that the information in this proposal and application is true and accurate.

Signature: _____ Date: 4/15/14

Print/Type Name: Brandi M. Philips   Title: CEO

Request for Taxpayer
Identification Number and Certification

Name (as shown on your income tax return)
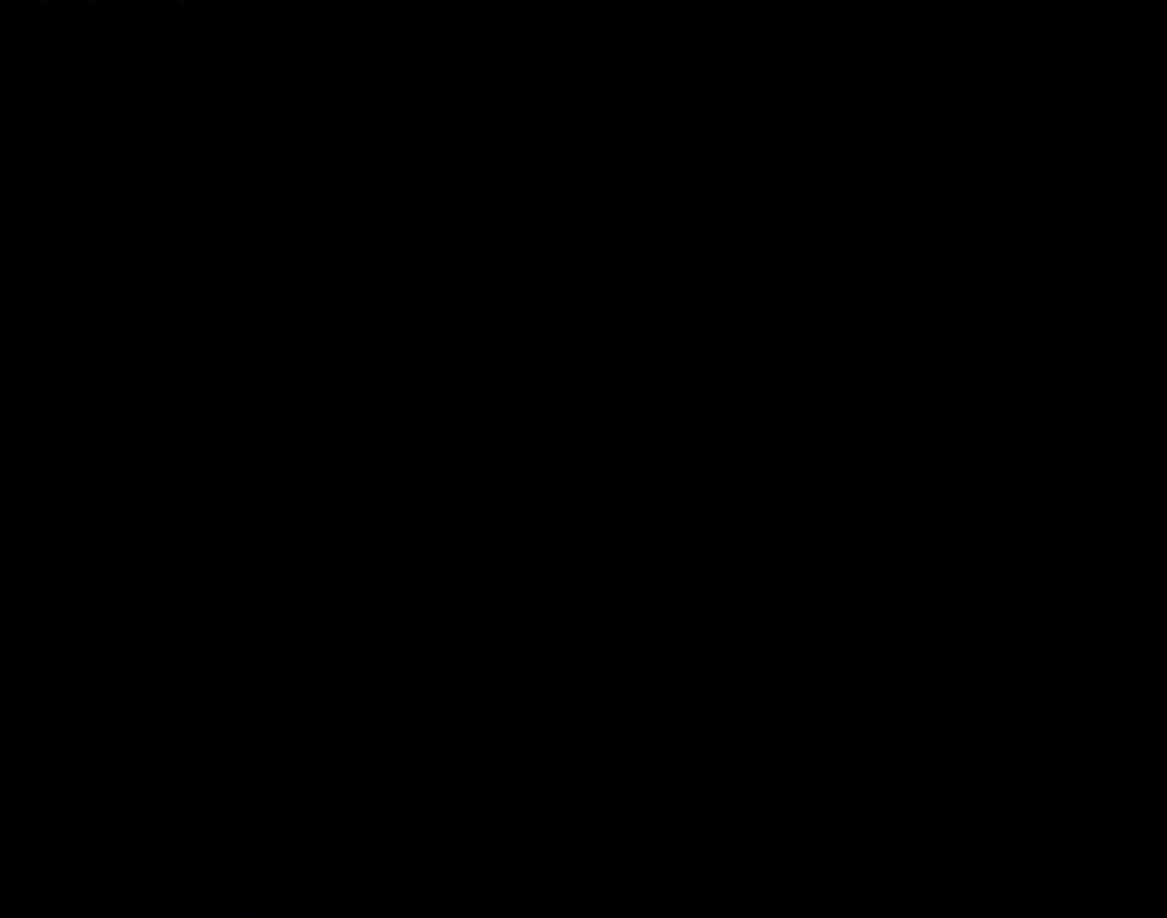
General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. The IRS has created a page on IRS.gov for information about Form W-9, at *www.irs.gov/w9*. Information about any future developments affecting Form W-9 (such as legislation enacted after we release it) will be posted on that page.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, payments made to you in settlement of payment card and third party network transactions, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and

4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

• An individual who is a U.S. citizen or U.S. resident alien,

• A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,

• An estate (other than a foreign estate), or

• A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

Cat. No. 10231X

Form **W-9** (Rev. 8-2013)

APPENDIX D

Allegheny County

Vendor Creation Form

■ Add   ☐ Change   Supplier No. _____

Company Information: **Federal Tax ID (TIN)**

Allegheny HealthChoices, Inc   ████████

Company Name (Please type or print)   **Original** W-9 must be attached

Required information   **Type of Commodity Provided**
Type of Service Provided
                                                                 (please describe below)

☐ Independent Contractor   ☐ Rent
☐ Maintenance/Service Agreement   ☐ Care Giver
☐ Insurance   ☐ Legal
☐ Personal Reimbursement   ☐ Medical
■ Other (please list)

Required Information

Minority Or Women Owned   ☐ Yes   ■ No

If yes select ethnicity and gender of the vendor below:

☐   Asian Pacific American
☐   Black American
☐   Hispanic American
☐   Native American
☐   Subcontinent Asian American
☐   Non-Minority Woman
☐   Other

If Yes   ☐ Male ☐ Female

Certified By: ☐ PAUCP   ☐ PADGS   ☐ Non PA Certification

                (attach copy of certification)

Non-Profits including Faith Based Organizations

☐ Faith Based Non-Minority

☐ Faith Based Minority

☐ African American Non-Profit

■ Other Non-Profit

Outreach Manager Interface   ☐ Yes   ■ No

APPENDIX D

Industry Classification by NAICS Code

Primary Industry _____

Secondary Industry (if applicable) _____

*If code is not known go to http://www.census.gov/epcd/naics02/naicod02.htm and select the correct code.

Supplier Information (Search Type "P") – (Where PO should be sent to place order)
Please type or print

Company Name	_____	Telephone Number	_____
Address Line 1	_____	Fax Number	_____
Address Line 2	_____		
Address Line 3	_____		
City	_____	State	_____
ZIP Code	_____		

Required Information
Supplier/Remit To Information (Search Type "V") – (Where check will be mailed for payment. Check must be made payable to exact name listed under TIN provided or check cannot be processed.)
Please print or type

Supplier/Payee Name	Allegheny HealthChoices, Inc.
Address Line 1	444 Liberty Avenue
Address Line 2	Suite 240
Address Line 3	
City	Pittsburgh State PA
ZIP Code	15222
Telephone Number	(412)325-1100
Fax Number	(412)325-1111

*If the "remit to" information provided on form does not match invoices submitted for payment, the Controller's Office MUST contact supplier to verify address information before payments are processed. Thank you for your cooperation.

If the Allegheny County Department with which you do business is known, providing the information below will help in the processing of your payments. Failure to include the information may result in processing delays.

**Allegheny County
Departmental Contact**

Name	Leslie Lewis-Pollard
Telephone No.	412-350-5663
Fax No.	412-350-3414
Email Address:	Llewis-pollard@alleghenycounty.us

Supplier/Payee Contact Name

Name	Lynann Casagrande
Telephone No.	(412)325-1100
Fax No.	(412)325-1111
Email Address:	lcasagrande@ahci.org